

ABSTRACT OF THE DISCLOSURE

A spirometric system can be used to determine static and dynamic lung function for diagnosis, therapy and evaluation. In recent years, air pollution and a deteriorating environment have caused respiratory diseases to increase rapidly. A portable spirometric system, which for home care and possible screening tests in the hospital, is the answer to this need. Recently, the established technologies of microelectromechanical system (MEMS) have enabled the possible minimization of the spirometer with a microsensor. It includes the modular design for low power consumption, precision volume production, and competitive price for disposable sensors. In this invention, the focus is to improve sensor's performance by using MEMS technologies and material selection. Fabricating the microsensor uses semiconductor processes, which aims to increase the sensors performance and lower the cost by future mass production. The use of American Thoracic Society (ATS) guidelines for system implementation assures the quality of the system for future upscale production of safe and quality device.

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AMENDMENTS TO THE ABSTRACT

Please replace the entire Abstract with the attached Abstract of the Disclosure.